

What is claimed is:

1. A purified polypeptide comprising an amino acid sequence selected from the group consisting of:

5      a) an amino acid sequence of SEQ ID NO:1,  
b) a naturally-occurring amino acid sequence having at least 90% sequence identity to the sequence of SEQ ID NO:1,  
c) a biologically-active fragment of the amino acid sequence of SEQ ID NO:1, and  
d) an immunogenic fragment of the amino acid sequence of SEQ ID NO:1.

10     2. An isolated polypeptide of claim 1, having a sequence of SEQ ID NO:1.

15     3. An isolated polynucleotide encoding a polypeptide of claim 1.

4. An isolated polynucleotide encoding a polypeptide of claim 2.

20     5. An isolated polynucleotide of claim 4, having a sequence of SEQ ID NO:2.

6. A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 3.

25     7. A cell transformed with a recombinant polynucleotide of claim 6.

8. A method for producing a polypeptide of claim 1, the method comprising:

25     a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide encoding the polypeptide of claim 1, and  
b) recovering the polypeptide so expressed.

30     9. A method of claim 8, wherein the polypeptide has the sequence of SEQ ID NO:2.

10. An isolated antibody which specifically binds to a polypeptide of claim 1.

11. An isolated polynucleotide comprising a sequence selected from the group consisting of:

- a) a polynucleotide sequence of SEQ ID NO:2,
- b) a naturally-occurring polynucleotide sequence having at least 90% sequence identity to the sequence of SEQ ID NO:2,
- c) a polynucleotide sequence complementary to a),
- d) a polynucleotide sequence complementary to b) and
- e) a ribonucleotide equivalent of a)-d).

12. An isolated polynucleotide comprising at least 60 contiguous nucleic acids of claim 11.

13. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 11, the method comprising:

- a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and
- b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

14. A method of claim 13, wherein the probe comprises at least 60 contiguous nucleotides.

15. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 11, the method comprising:

- a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and
- b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

16. A composition comprising an effective amount of a polypeptide of claim 1 and an

acceptable excipient.

17. A composition of claim 16, wherein the polypeptide has the sequence of SEQ ID NO:1.

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18. A method for screening a compound for effectiveness as an agonist of a polypeptide of claim 1, the method comprising:

- a) exposing a sample comprising a polypeptide of claim 1 to a compound, and
- b) detecting agonist activity in the sample.

10 19. A method for screening a compound for effectiveness as an antagonist of a polypeptide of claim 1, the method comprising:

- a) exposing a sample comprising a polypeptide of claim 1 to a compound, and
- b) detecting antagonist activity in the sample.

15 20. A method for screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a polynucleotide sequence of claim 1, the method comprising:

- a) exposing a sample comprising the target polynucleotide to a compound, under conditions suitable for the expression of the target polynucleotide,
- b) detecting altered expression of the target polynucleotide, and
- c) comparing the expression of the target polynucleotide in the presence of varying amounts of the compound and in the absence of the compound.

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25 21. A method for assessing toxicity of a test compound, said method comprising:

- a) treating a biological sample containing nucleic acids with the test compound;
- b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 20 contiguous nucleotides of a polynucleotide of claim 11 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 11 or fragment thereof;
- c) quantifying the amount of hybridization complex; and

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d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.

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22. A polypeptide of claim 1, comprising the amino acid sequence of SEQ ID NO:1.

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23. A polynucleotide of claim 11, comprising the polynucleotide sequence of SEQ ID NO:2.

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~~24. A diagnostic test for a condition or disease associated with the expression of PxTE in a biological sample comprising the steps of:~~

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a) combining the biological sample with an antibody of claim 10, under conditions suitable for the antibody to bind the polypeptide and form an antibody: polypeptide complex; and  
b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.

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25. The antibody of claim 10, wherein the antibody is:

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(a) a chimeric antibody;  
(b) a single chain antibody;  
(c) a Fab fragment;  
(d) a F(ab')<sub>2</sub> fragment; or  
(e) a humanized antibody.

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26. A composition comprising an antibody of claim 10 and an acceptable excipient.

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27. A method of diagnosing a condition or disease associated with the expression of PxTE in a subject, comprising administering to said subject an effective amount of the composition of claim

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28. A composition of claim 26, wherein the antibody is labeled.

29. A method of diagnosing a condition or disease associated with the expression of PxTE in

a subject, comprising administering to said subject an effective amount of the composition of claim  
28.

5        30. A method of preparing a polyclonal antibody with the specificity of the antibody of  
claim 10 comprising:  
10        a) immunizing an animal with a polypeptide of SEQ ID NO:1 or an immunogenic fragment  
thereof under conditions to elicit an antibody response;  
15        b) isolating antibodies from said animal; and  
c) screening the isolated antibodies with the polypeptide thereby identifying a polyclonal  
antibody which binds specifically to a polypeptide of SEQ ID NO:1.

20        31. An antibody produced by a method of claim 30.

25        32. A composition comprising the antibody of claim 31 and a suitable carrier.

30        33. A method of making a monoclonal antibody with the specificity of the antibody of claim  
10 comprising:  
35        a) immunizing an animal with a polypeptide of SEQ ID NO:1 or an immunogenic fragment  
thereof under conditions to elicit an antibody response;  
40        b) isolating antibody producing cells from the animal;  
45        c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-  
producing hybridoma cells;  
50        d) culturing the hybridoma cells; and  
55        e) isolating from the culture monoclonal antibody which binds specifically to a polypeptide  
of SEQ ID NO:1.

60        34. A monoclonal antibody produced by a method of claim 33.

65        35. A composition comprising the antibody of claim 34 and a suitable carrier.

70        36. The antibody of claim 10, wherein the antibody is produced by screening a Fab  
expression library.

37. The antibody of claim 10, wherein the antibody is produced by screening a recombinant immunoglobulin library.

38. A method for detecting a polypeptide of SEQ ID NO:1 in a sample comprising the steps  
5 of:

a) incubating the antibody of claim 10 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and

b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide of SEQ ID NO:1 in the sample.

10 39. A method of purifying a polypeptide of SEQ ID NO:1 from a sample, the method comprising:

a) incubating the antibody of claim 10 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and

15 b) separating the antibody from the sample and obtaining purified polypeptide of SEQ ID NO:1.

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